

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Mohamed H. Khan, et al.

EV175421530US

Serial No.: Not yet assigned

Confirmation: Not yet assigned

Filing Date: Concurrently herewith

Group Art Unit: Not yet assigned

Title: Molybdenum Carbide

COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313

**INFORMATION DISCLOSURE STATEMENT**

Sir:

This Information Disclosure Statement is submitted:

- ☒ under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of international application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:
- ☐ Statement under 37 CFR 1.97(e), or
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with a:
- ☐ Statement under 37 CFR 1.97(e)(1) or (2), and
- ☐ a \$180.00 fee set forth in 37 CFR 1.17 (p)  
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☐ a check in the amount of \$\_\_\_\_\_ is enclosed herewith.

☐ Please charge to Deposit Account No. 50-0982 the sum of \$\_\_\_\_\_.

At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **50-0982** pursuant to 37 CFR 1.25.

☒ Applicant(s) submit herewith Form PTO-1449 - Information Disclosure Citation together with copies of patent publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

☒ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 1.56(c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to:  
Assistant Commissioner for Patents,  
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Typed Name: Bruce E. Dahl

Signature: 

Respectfully submitted,

By  
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Date: 

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<b>FORM PTO-1449</b>  <b>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</b>  (Use several sheets if necessary)	ATTY. DOCKET NO. <b>PHELPS 18(b)</b>	APPLICATION NO.	CONFIRMATION NO.
	APPLICANT <b>Mohamed H. Khan t al.</b>		
	FILING DATE	GROUP	

**REFERENCE DESIGNATION U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	1A	6,207,609B1	03-27-2001	Gao et al.	
	1B	3,077,385	02-1963	W.L. Robb	
	1C	4,331,544	05/1982	Takaya et al.	
	1D	4,851,206	07-1989	Boudart et al.	
	1E	2,402,084	06/11/1946	R.F.Rennie	
	1F	4,515,763	05/07/1985	Boudart et al.	
	1G	6,042,370	03/28/2000	Weide	
	1H				
	1I				
	1J				
	1K				

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	1L	EP1088788A2	04/04/2001	Gao, Lin		
	1M	EP1162281A1	12/12/2001	Edward V. McCormik		
	1N					
	1O					
	1P					

**OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)**

	1Q	Studies in Inorganic Chemistry 19 "Molybdenum: An Outline of its Chemistry and Uses" by E.R. Braithwaite and J. Haber, 1994. Pages 14-15, 25-26, 73-75, 147, 148, 150
	1R	Search Report in corresponding EPO Patent Application Serial No.: 02022648.6-2122 of Cyprus Amax Minerals Company
	1S	"Molybdenum Carbide Catalysts; II. Topotactic Synthesis of Unsupport d Powders," Lee, J.S., et al., 6113 Journal of Catalysis, Vol. 112 (07/1988), No.: 1, pp.44-53.

EXAMINER

DATE CONSIDERED